



UNIVERSITY OF THE INCARNATE WORD

HSCI 4320 V1 BIOSTATISTICS FOR HEALTH SCIENCES
COURSE OUTLINE/Syllabus –UIW Online

I. Instructor

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II. Catalogue Course Description

This course introduces students to research method techniques and common statistical applications of importance to healthcare managers. Emphasis is placed on the study of statistical techniques for problem-solving and decision-making including the theoretical and applied statistical and quantitative skills required to understand, conduct, and evaluate managerial research. Students will learn to distinguish between types of research (quantitative and qualitative) with an emphasis on the use of quantitative analysis in healthcare organizations. Basic research methods are described, including surveys, observational studies, experimental and quasi-experimental design; and the use of primary and secondary data sets. Description of statistical techniques for analyzing and interpreting data will include descriptive statistics, hypothesis testing, probability sampling, t-tests, ANOVA, chi-square analysis, correlation and linear regression.

III. Course Objectives

At the end of this course the completed student will be able to: Define and identify quantitative research; Define and identify qualitative research; Identify and describe basic research statistical techniques for problem-solving and decision making and assess and characterize appropriate use of statistical techniques for analyzing and interpreting data.

OBJECTIVES	ASSESSMENTS
<ul style="list-style-type: none">Define and identify quantitative research and demonstrate its application.	<ul style="list-style-type: none">Written quiz, Graded Weekly Question, Video, and Text Discussions, Graded Listening/Discussion NPR Programming.
<ul style="list-style-type: none">Define and identify qualitative research and demonstrate its application.	<ul style="list-style-type: none">Written quiz, Graded Weekly Question, Video, and Text Discussions, Graded Listening/Discussion NPR Programming.
<ul style="list-style-type: none">Identify and describe basic research statistical techniques for problem-solving and decision making and demonstrate their application.	<ul style="list-style-type: none">Written quiz, Graded Weekly Question, Video, and Text Discussions, Graded Listening/Discussion NPR Programming,

<ul style="list-style-type: none"> Assess and characterize appropriate use of statistical techniques for analyzing and interpreting data. 	<ul style="list-style-type: none"> Written quiz, Graded Weekly Question, Video and Text Discussions, Graded Listening/Discussion NPR Programming.
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IV. Methodology

Assessment will include: individual and group work; class participation, and objective testing through weekly quizzes, a midterm, and a final.

V. Course Requirements / Grading

A. Readings and Instructional Videos: Required readings are assigned from the course text. There may be some assigned readings apart from the text, as well as, audio and video clips provided by the instructor. Students are responsible for all required readings and are expected to participate/contribute to class discussions and exercises.

B. Admission Ticket: *Assignment placed in Discussion Section.* We've all gone out to movies, amusement parks, concerts, museums, or athletic events and have been expected to present an admission ticket for entry. Your weekly academic admission to this class is the following: As part of your weekly text reading (weeks 1-6) you are to post an "admission ticket" to the Blackboard discussion board each week under the thread heading "Admission Ticket." To assess and improve your writing skills you are to choose and copy a short passage from the assigned reading that you found especially important, exhilarating, irritating, or puzzling (Quotation marks must be used to indicate a direct quote from the textbook.) A citation indicating the chapter and page number of the passage is required. Then, you are required to write a full paragraph (minimum of 5 – 7 sentences) explaining why you chose the passage. The use of complete sentences and proper grammar is required. Students should be prepared to answer the instructors (and other students') questions pertaining to their submitted assignment.

C. Discussion questions: Throughout the course there will be weekly questions germane to quality improvement posited for individual consideration and subsequent group discussion. Usually these questions will center on subject matter from your text and discussed in a three minute *Doc X MD Funny Feelings NPR radio program (provided to you on your weekly blackboard media link assignment section)* to be considered and analyzed. Contributions to these discussions are *required and must be substantive in nature*. Each student will be asked to give their initial response and then respond to at least (3) other classmate discussion posts. To be clear then each week for discussion questions the student will be responsible for at least (4) discussion posts.

D. Objective Quizzes: There will be a series of (6) objective quizzes, each designated on specific portions of the text. These tests will be open book/open notes and are intended to solidify the material covered.

E. Objective Exams: There will be two objective exams – a midterm and final. The mid-term will summarize the first half of the course. The final will be comprehensive and capstone the major points learned in the course. Both exams will be open book/open. Individual notes may also be used. The exams are intended to solidify the material covered.

F. General Weekly Questions: An important part of our learning is in information sharing. Each week the course assignments should be very clear and self-explanatory. In the event you have an assignment, or course question, the place to post your question each week is in Blackboard in the Discussion Section under the non-

graded General Question Link. In a particular week if there are any general questions about the assignments place the question in the "General Question" thread. In the interest of inter-professional education and shared learning I ask that each of you feel inspired, and in fact encouraged, to answer your fellow classmate's questions. If I see that there is no solution (This will be rare because I have every confidence that you all will find the solution as a team) then I will jump in. Fair enough?

G. **Spontaneity of Play Cyber Café®**. Each week a NON-graded question will be posed in the Cyber Café thread in your Blackboard discussion section. Experience with past classes using "**Spontaneity of Play Cyber Café'®**" has shown non-graded *sharing of play experiences* integrated into course curriculum significantly: *diminished* weekly student stress and late assignments, *increased* excitement to learn, *increased* individual & group participation with greater substantive and innovative qualitative and quantitative contribution and material mastery. *While it is totally voluntary I sincerely hope you participate weekly in the Cyber Café experience! Often the best submissions each week will be discussed on Doc X's NPR program Xpress with Doc X MD.*

H. **Class Participation**: Students are expected to fully participate in each discussion and in completing the assignments in a timely fashion. Not completing work on time not only loses credit for that assignment but also jeopardizes the student's *participation grade* as well. Yes, unexcused late assignments carry with them a "double jeopardy" grading hazard.

I. **Doc X MD's NPR Xpress with Doc X MD**:

Required Listening throughout 8 week course: NPR's weekly Xpress with Doc X MD Program on Tuesday Evenings 7-8 PM CST:

Listen Live Podcast 7-8 PM CST Tuesday evenings):

<http://kamu.tamu.edu/fm/listen.php> (HD1 Original Format) or

Listen Archived Podcast:

http://kamu.tamu.edu/fmlocal/EpisodeList.php?show_id=1310571228

If **7-8 PM** Live programs are missed by students they can still be reviewed because the programs are archived and posted within 2 hours of original airing (For example **Xpress with Doc X MD** is archived each Tuesday by 10:00 pm CST).

It is totally voluntary to call-in at 979-845-5689 but the NPR audience enjoys when you do and experience shows it helps improve your communication skills in a nurturing and shared learning setting with Doc X.

Please Note: For inclusion in course capstone group essay it is required to cite within the essay body and reference at end of essay the **Xpress with Doc X MD** radio program you are referring to. For your convenience here is the format to use:

Citation example to use within the essay body for an **Xpress with Doc X MD** radio program:
(Xenakis, Date) i.e. (Xenakis, May 5th, 2015)

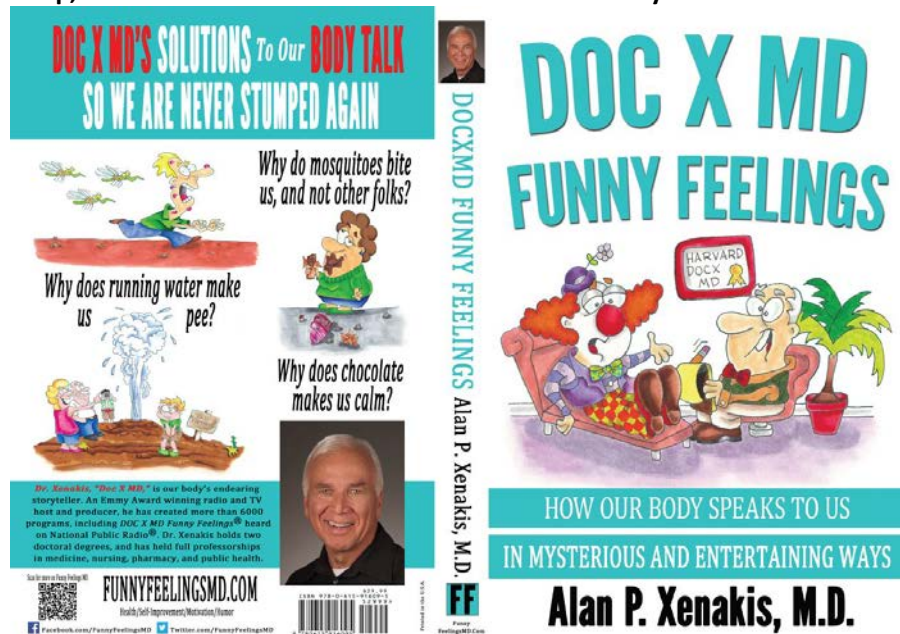
Reference example to use at the end of the essay for an **Xpress with Doc X MD** radio program:

Xenakis, A. (Date). Xpress with Doc X MD xxxth program. Program title with Guests names. In *Xpress with Doc X, M.D.* [Audio podcast]. Retrieved from <http://kamu.tamu.edu/fmlocal/EpisodeList> xxxxxxxxx

More complete sample/example (not real show):

Xenakis, A. (2015, May 5th). Xpress with Doc X MD 190th Program. Ethics of New Year's Resolutions with Alan Xenakis, MD and Bill McGuire. In *Xpress with Doc X, M.D.* [Audio podcast]. Retrieved from http://kamu.tamu.edu/fmlocal/EpisodeList.php?show_id=1310571228

IX. Highly RECOMMENDED TEXT Reading (BUT Not required). Students have found the text *Doc X MD Funny Feelings* to be highly useful in discussing curiosities and concerns in all aspects of mind and body behavior including leadership, healthcare administration and healthcare delivery.



- 1.) Xenakis, A.P. (2014) *Doc X MD Funny Feelings*. Funny Feelings MD Books. College Station, Texas. ISBN: 978-0-615-91609-5

Why have students and individuals who seek to master effective leadership sought to read DOC X MD FUNNY FEELINGS?

From Doc X's experience, bringing awareness, discussion, and understanding of many of the functional and perceptual constraints that are integral parts of human behavior and often interfere with effective communication, will significantly help individuals become effective leaders and master the art of effective leadership.

DOC X MD FUNNY FEELINGS is AVAILABLE AT:

http://www.amazon.com/Doc-X-MD-Funny-Feelings/dp/0615916090/ref=sr_1_10?ie=UTF8&qid=1403742549&sr=8-10&keywords=alan+Xenakis

Short Description:

Doc X MD Funny Feelings is a 345 page book with 80 fun filled, well researched, mind and heart grabbing *Funny Feelings* chapters that scream, "don't put me down!" Each chapter is organized for clarity, authenticity, and humor. *Funny Feelings* phenomenon are defined with both common and medical terms that all generations understand and embrace. Basic anatomic, physiologic, and psychiatric mechanisms of action are explained. Each *Funny Feeling* has a summary that leads with the lyrical introduction of... "It's a *Funny Feeling* to know that...." This heartwarming summary leaves us with pearls of memorable wisdom and wit. As we have come to expect from *Doc X MD* and his remarkable storytelling each chapter has unique original full color *Funny Feelings* illustration. Through extraordinary storytelling **DOC X MD Funny Feelings** takes us on a literary journey that stirs whimsical imagery and creates gateways to places where our smiles *strive to live*. With each *page passage*, we'll *discover and learn answers to puzzlers about everyday mind/ body sensations* that *Doc X* calls *body talk* that we all experience but don't fully understand!

DOC X MD Funny Feelings is timeless non-fiction that brings us reliable authority and boundless flexibility as: a truly whimsically illustrated "coffee-table" book, a must have "creative accounts series" of our *body talk*, a "source generator of vibrant imagination and humor," and a **trusted leadership health care "waiting-room reference" for administrators, providers and patients to use in initiating or tickling the onset of important discussions on any patient centered health or medical issue.**

J. Professionalism: Students will act professionally. In the course students may have strong opinions, but we will maintain a respectful tone, proper decorum, and appropriate etiquette throughout the course. Also, **in keeping with professional standards, late work WILL NOT be accepted for credit and in most instances a zero will be earned. Due dates and times for assignments will be clearly outlined and must be adhered to.** If a truly calamitous circumstance arises that may interfere with the timely completion of assignments, notify me, your instructor, **PRIOR TO THE ASSIGNMENT DUE DATE.** All date/time references throughout this course pertaining to the assignments being due are for Central Standard Time (CST), regardless of the time zone within which you as a student are working or residing.

VI. Method of Evaluation

A. Requirements

Individual Work	
<ul style="list-style-type: none"> • Introduction/ Bios (Graded Pass/Fail; Non-completion will cause up to 5% to be deducted from final grade) • Complete Admission Ticket Discussion for Assigned Reading (20%) • Substantially Complete 8 Discussion Questions (20%), • 6 Quizzes (20%) 	80%
<ul style="list-style-type: none"> • 2 Exams – Midterm and Final (20%) 	
<ul style="list-style-type: none"> • Listen WEEKLY Xpress with Doc X MD/ add discussion comment (10%) 	

	10%
Participation (10%)	10%

B. Grading

A	93 - 100	Completion of all work in a timely, excellent manner; demonstrating a clear understanding of the assignments, concepts, and course content.
A-	90-92.9	
B+	87-89.9	Completion of all work in a timely and approved manner but with room for improvement.
B	83-86.9	
B-	80-82.9	
C+	77-79.9	Incomplete work or work that is careless or imprecise.
C	73-76.9	
C-	70-72.9	
F	< 70	Unacceptable work.

VII. Required Text

Biostatistics for the Health Sciences, R. Clifford Blair; Richard A. Taylor, Publisher: Pearson
Copyright year: © 2008 Pages: 552, Available as eText (see course registrar for access)
ISBN-13 978-0-13-208435-2

VIII. Disability Statement

The University of the Incarnate Word is committed to providing a supportive, challenging, diverse and integrated environment for all students. In accordance with Section 504 of the Rehabilitation Act – Subpart E and Title III of the Americans with Disabilities Act (ADA), the University ensures accessibility to its programs, services and activities for qualified students with documented disabilities.

For more information, contact:

Student Disability Services
 Administration Building, Suite 105
 Ph. (210) 829-3997
 Fax (210) 829-6078
 Website: <http://www.uiw.edu/sds>

IX. Academic Honesty

The highest standards of academic honesty are expected in the course. Forms of academic dishonesty include, but are not limited to cheating, plagiarism, counterfeit work, falsification of academic record, unauthorized reuse of work, theft, and collusion. See the student handbook for definitions and procedures for investigation of claims of academic dishonesty.

X. Class Schedule

Each week (class assignments will be posted on Blackboard by Midnight the Saturday before the week they are do) you will notice a number in parenthesis.

This is the Alternative Learning Equivalencies (AIE) for this course. It is an expectation for the minimum amount of time (hours) you will spend on each topic each week. Its primary purpose is for accreditation.

Week	Alternative Instructional Equivalent (AIE) for Activity	Estimated Hours
<i>In-class Hours (if applicable)</i>		0 hours (this is an on-line course)
#1	<ul style="list-style-type: none"> - Read Blair Introduction, Chapter 1 & Doc X MD FF /Place Admission Ticket Chapter/Funny Feelings MD Comments in Discussion Thread (1.5) - View Wk 1 Video Presentation/Bios; Listen NPR Xpress with Doc X MD (1.5) - Discuss – Week 1 discussion question, bio, & introductions (2) - Quiz 1 (1) 	6 hours
#2	<ul style="list-style-type: none"> - Read Blair Chapter 2 & Doc X MD FF /Place Admission Ticket Chapter/Funny Feelings MD Comments in Discussion Thread (1.5) - View Wk 2 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) - Discuss – Week 2 discussion question/chapter problem (2) - Quiz 2 (1) 	6 hours
#3	<ul style="list-style-type: none"> - Read Blair Chapter 3 & Listen: Doc X MD FF /Place Admission Ticket Chapter/Funny Feelings MD Comments in Discussion Thread (1.5) - View Wk 3 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) - Discuss – Week 3 discussion question/chapter problem (2) - Quiz 3 (1) 	6 hours
#4	<ul style="list-style-type: none"> - Read Blair Chapter 4 & Listen: Doc X MD FF /Place Admission Ticket Chapter/Funny Feelings MD Comments in Discussion Thread (1.5) - View Wk 4 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) - Discuss – Week 4 discussion question/chapter problem (2) - Quiz 4 (midterm) (1) 	6 hours
#5	<ul style="list-style-type: none"> -Read – Blair Chapters 5 & Listen: Doc X MD FF / Place Admission Ticket Chapter /Funny Feelings MD Comments in Discussion Thread (1.5) -View – Wk 5 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) -Discuss – Week 5 discussion question/chapter problem (2) -Quiz 5 – (1) 	6 hours
#6	<ul style="list-style-type: none"> -Read – Blair Chapters 6 & Listen: Doc X MD FF / Place Admission Ticket Chapter /Funny Feelings MD Comments in Discussion Thread (1.5) -View – Wk 6 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) -Discuss – Week 6 discussion question/chapter problem (2) -Quiz 6 – (1) 	6 hours
#7	<ul style="list-style-type: none"> -Read – Blair Chapters 7 & Listen: Doc X MD FF / Place Admission Ticket Chapter /Funny Feelings MD Comments in Discussion Thread (1.5) -View – Wk 7 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) -Discuss – Week 7 discussion question/chapter problem (2) -Quiz 7 – (1) 	6 hours
#8	<ul style="list-style-type: none"> -Read – Blair Chapters 8 & Listen: Doc X MD FF / Place Admission Ticket Chapter /Funny Feelings MD Comments in Discussion Thread (1.5) -View – Wk 8 Video Presentations; Listen NPR Xpress with Doc X MD (1.5) -Discuss – Week 8 discussion question/chapter problem (2) -Final Quiz 8 – (1) 	6 hours
	Total	48 hours

PLEASE NOTE: The course schedule and outline are subject to modification at the discretion of the instructor.

XI. IMPORTANT “DROP COURSE” INFORMATION:

It is the student’s responsibility to drop their course(s), there is no university-initiated drop for non-participation. The last day to drop without being charged tuition is by 5:00pm (CST) Friday the first week of class. If the drop is submitted after that Friday, the full tuition is charged and there is no prorated amount. All drops after this deadline through 5:00pm (CST) Friday of the sixth week of the term will result in a grade of ‘W’ without the possibility of a tuition refund.

To drop/withdraw from an online course please visit <http://online.uiw.edu/course-drop-form> and complete the online form.